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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,877	12/09/2003	Darren A. Janzig	1023-335US01	4792
28863	7590	04/21/2005	EXAMINER	
SHUMAKER & SIEFFERT, P. A. 8425 SEASONS PARKWAY SUITE 105 ST. PAUL, MN 55125			GREENE, DANA D	
			ART UNIT	PAPER NUMBER
			3762	

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/730,877

Applicant(s)

JANZIG ET AL.

Examiner

Dana D. Greene

Art Unit

3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10-28-2004</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

In claim 1, the phrase "each of the integrated circuits is located the first surface" should be rewritten to "each of the integrated circuits is located on the first surface."

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 7, 14, 19-22, and 25-31 stand rejected under 35 U.S.C. §102(b) as being anticipated by Meadows et al. (US 6,516,227 B1, hereinafter "Meadows").

Meadows is considered to disclose:

an implantable medical device comprising a plurality of integrated circuits; a plurality of discrete components (see col. 20, ln. 45 – col. 21, ln. 8, Meadows). The disclosed integrated circuits and discrete components are considered to anticipate the claimed anticipated configuration because both allow for a reduction in the size of the implantable medical device due to the smaller components;

a circuit board that is coupled to each of the integrated circuits and discrete components (see col. 36, ln. 44-50, Meadows). The disclosed circuit board is considered to anticipate the claimed circuit board because both carry the integrated circuits and discrete components within the housing and provide the capacity for the

integrated circuits and/or discrete components to be arranged on the circuit board according to height to better conform to the concavity of the housing;

a housing to house the circuit board (see col. 36, ln. 45-50, Meadows). The disclosed housing is considered to anticipate the claimed housing because both configurations allow for the circuit board within the housing to carry integrated circuits and discrete components;

wherein the circuit comprises first and second surfaces, each of the integrated circuits is located on the first surface, and each of the discrete circuit components is located on the second surface (see col. 21, ln. 1-15, Meadows);

wherein at least one of the integrated circuits and discrete components are arranged on respective first and second surfaces to substantially conform to a predetermined non-linear profile (see col. 20, ln. 60-67, Meadows). The disclosed rounded profile is considered to anticipate the claimed non-linear profile because both configurations provide a better conformation to the concavity of the housing.

With reference to claims 3-5, 7, and 22, 25-31, Meadows is considered to disclose the claimed device as discussed above including:

a telemetry coil that encircles the circuit board (see col. 4, ln. 60-67, Meadows). The disclosed primary coil and receiver are considered to anticipate the claimed telemetry coil because both can be positioned within a concave housing such that they occupy space that cannot be practically occupied by the circuit board.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2, 6, and 23-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Meadow in view of Howard (US 5,800,535, hereinafter "Howard"). Meadow is considered to disclose the claimed invention as discussed above, under the anticipatory rejection, except for the claimed placement on the cranium. However, Howard is considered to teach the placement of implantable medical devices within the cerebral cortex (see col. 7, ln. 20-30, Howard). It would have been obvious to one of ordinary skill in the art to combine the teachings of Meadow with those of Howard for the purpose of implanting a medical device on the cranium of a patient.

Claims 32-35 and 15-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Meadow in view of Ciurzynski et al. (US 6,626,680 B2, hereinafter "Ciurzynski"). Meadow is considered to disclose:

an implantable medical device comprising a housing that includes a major surface and feedthrough (see col. 4, ln. 30-35, Meadow). The disclosed feedthrough is considered to anticipate the claimed feedthrough because both allow components within the housing of the implantable medical device to be coupled to one or more electrodes, sensors, or the like located outside the housing while maintaining the hermeticity of the housing. Meadow discloses the claimed invention as previously discussed, except for the claimed orientation of the feedthrough. However, Ciurzynski is considered to teach this orientation of the angle relative to the major surface (see col. 3, ln. 48-52, Ciurzynski). It would have been obvious to one of ordinary skill in the art to combine the teachings of Meadow with the angle orientation of Ciurzynski for the purpose of utilizing side surfaces of a concave housing, while allowing the feedthrough to fit in a space provided within a low-profile, concave housing.

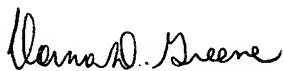
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dana D. Greene whose telephone number is (571) 272-7138. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-4376.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dana D. Greene



George Manuel

Primary Examiner